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EDITOR:

D. W. BEADLE,

ST. CATHARINES, ONTARIO.

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London.

D. W. BEADLE, Secretary,
St. Catharines.

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A. M. SMITH, Drummondville.

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THE WINTER MEETING.

(Continued from No. 3.)

DISCUSSION ON THE BERBERRY.

Thomas Beall, Lindsay, would prefer the Buckthorn as a hedge plant to the Berberry. The Purple Berberry was a very beautiful shrub.

No one present had ever seen the white variety mentioned in Mr. Bucke's paper.

"Which are the best ten native flowering trees and shrubs for ornamental purposes?"

Wm. Saunders, London, not being able to be present, sent his paper on this subject to the Secretary, who read it to the meeting. The varieties mentioned in it are the *Pyrus Arbutifolia*, Chokeberry; *Cornus Stolonifera*, Red Osier Dogwood; *Euonymus atropurpureus*, Burning Bush, or Spindle Tree; *Hypericum Kalmianum*, Kalm's St. John's Wort; *Cephalanthus occidentalis*, Button Bush; *Ceanothus Americanus*, New Jersey Tea; *Vaccinium Corymbosum*, Common or Dwarf Blueberry; *Ilex verticillata*, Black Alder or Winterberry; *Liriodendron Tulipifera*, the Tulip Tree; and *Prunus Serotina*, Wild Black Cherry. This valuable paper will also be given to the members in full in the Annual Report of 1879.

Chas. Arnold, Paris, mentioned the Witch Hazel and Highbush Cranberry.

W. Roy, Owen Sound, spoke of the *Hypericum Kalmianum* as a most beautiful hardy shrub.

President Burnet thought highly of the Sweet Chestnut, American Mountain Ash, and Witch Hazel.

John Croil, Aultsville, recommended the Black Walnut.

Doctor Wott, Niagara, admired our native thorns.

D. W. Beadle, St. Catharines, called attention to a species of native Crab Apple which grew in great abundance near Cayuga, which was very beautiful when in bloom.

"Should it be made compulsory by law to destroy the black-knot on Plum trees?"

Vice-President Roy, Owen Sound, read the following paper on the subject :

This scourge of the plum tree is found in nearly all parts of Ontario, and is so common and destructive that in some districts one seldom sees a plum tree free from knot; and although a great deal has been written in agricultural and horticultural papers, and warnings given by vigilant members of both societies about the injury done to the fruit crop, and the sure death of the tree if not thoroughly cut off and burned, still the warning seems to be of little avail. The disease is spreading very fast, and unless some remedy, either Legislative or otherwise, is found to stop its further progress, the plum crop will dwindle down to very small dimensions. When it gets into a plum orchard it attacks all varieties, but most frequently upon trees standing in wet dark rich soil. If the trees are planted in a dry soil they have a better chance to escape the disease.

Much has been said and written about the origin of black knot. The insect theory has long been abandoned, and nearly all intelligent fruit growers now accept the knot as a vegetable excrescence of fungous origin. Scientific research by entomologists and botanists has given us the cause, nature, and means of propagation of the black knot; it is for us to profit by their instructions, and endeavor by every means in our power to put down and destroy this pest.

It spreads with great rapidity. I lately saw a blue plum tree affected with black knot, and large numbers of suckers growing up all around it, nearly every one of them from a foot high was affected with knot, evidently showing how contagious and hereditary it is; hence the necessity of strong measures being taken to keep it down; what these measures should be is for you to say. From my own observation and experience, I have not much faith in moral suasion in this matter. If you think the evil can be eradicated by act of parliament, and proper machinery put in motion to compel every one to keep their trees free of this ugly and injurious excrescence, it will be a benefit to the community, and put our people largely in possession of a most delicious and nourishing fruit, with millions of bushels surplus for export, which will be real wealth to the country.

There is a Bill now before the Ontario Legislature, in charge of the

member for North Grey, which received a first reading about the end of last session. I think it will be well for this meeting of the Fruit Growers' Association of Ontario to take the matter into consideration, and see if any improvement can be made on the Bill. It might include Choke Cherries and Wild Cherries, both very subject to black knot, and which have a tendency to spread this very contagious disease if growing near a plum orchard. The Curenlio might also form part of the Bill.

The Secretary read the Bill now before the Legislative Assembly, and after considerable discussion the following resolution was passed unanimously:

"Mr. Roy having read a paper on the black knot on plum trees, and having submitted a Bill, now before the Legislative Assembly of Ontario, for the prevention of the spread of black knot, we hereby agree to endorse the sections of such Bill, and desire to strengthen Mr. Creighton's hands by instructing our Secretary to correspond with the introducer of the Bill, and assure him that it is entirely in accordance with our views, and respectfully suggest that the provisions be extended to Wild Cherry and other trees subject to this disease."

"Are there any varieties of Blue Plums specially valuable for cultivation in Ontario?"

P. C. Dempsey, Albury, said there was in his section a little plum which was raised from a stone of the Peach Plum, which ripens very early. Another variety that ripens after this, a sort of Damson, abounds in that part of the country. It is found growing in fence corners for miles. The fruit ripens after the flush of autumn fruit and sells on that account for more than the best cultivated sorts. The tree has a spreading habit, and the fruit keeps well. Yet another sort originated in the grounds of a neighbor, which does not ripen until frost comes, and sells at very high prices because all others are gone, though it is but of third quality.

A. M. Smith, Drummondville, mentioned a variety of blue plum, that is grown in the County of Lincoln, a most abundant cropper, constant bearer, and very profitable. The origin of this plum is not known. The trees now existing were propagated from a tree that has been dead some five years, and must have been all of fifty years old when it died. It was standing on the farm of one Andrew Baker, now deceased, when he sold it to Isaac Wisner, about forty years ago, and

which farm is now owned by Jacob H. Moyer. There is now about a hundred trees of this variety growing on Jacob H. Moyer's place, raised from suckers of this old tree. It was a late ripening sort, sold well, and proved to be a very profitable plum.

"What measures can be adopted to prevent the spread of the yellows in the peach?"

The subject was introduced by an exhaustive paper from Linus Woolverton, Grimsby, and such is the importance of the subject that we publish it now instead of reserving it for the Annual Report.

WHAT MEASURES CAN BE ADOPTED TO PREVENT THE SPREAD OF THE YELLOW IN THE PEACH?

Before we can successfully interest ourselves about the measures to be adopted for preventing the spread of the yellows in our country, it is necessary to consider the extent of the interest affected, and also the nature of the disease itself as far as this is known.

The peach growing interest of Canada is yet in its infancy, but it is rapidly assuming large proportions in those districts favorable to its cultivation. Of course we cannot expect ever to see in Canada such orchards of peach trees as may be seen in Delaware, Maryland, and some other States, where the peach finds a more congenial climate, and where a single orchard sometimes extends over hundreds of acres; but during the last five years a great impetus has been given to this industry, and orchards may now be seen dotting the shores of lakes Huron, Erie, and Ontario, wherever the ameliorating influence of the water is united with a suitable soil, and a winter that is not too severe. The Niagara peninsula is, peculiarly adapted to peach culture, and on it the largest orchards may be found; indeed it is no uncommon thing now to find an orchard there of two or three thousand peach trees, and near Niagara Falls there is one of about ten thousand. As a rough estimate, we may safely assert that the number of peach trees now standing in Canadian soil exceeds one hundred and fifty thousand. Of course a large number of these having been planted during the past three or four years, have not yet begun bearing; but already our people are beginning to appreciate home production in this article. It is found that the native grown peach reaches the consumer in a fresher condition; and that Canadian growers naturally send their best into market, while distant shippers, after selling their best in their own

cities, send into Canada their inferior fruit. Furthermore we venture to affirm that no finer Crawfords are grown anywhere than are produced on the sandy loam skirting somewhat irregularly the south shore of Lake Ontario.

It is evident therefore that any disease that threatens to destroy this interest, in which many have now invested almost their whole capital, and in which their prospects of success in life are largely bound up, will not only result in terrible disappointment and misfortune to such persons, but will prove an incalculable loss to the general public of our country who are the consumers of this delicate luxury.

THE NATURE OF THE YELLOWS is about as mysterious as that of the famous pear blight, and it is useless to dogmatise upon the matter. T. A. Fulton, in his *Peach Culture*, suggests that it is a case of *arbor consumption* arising from a deficiency in the supply of tree nourishment; and he thinks that it first originated in bad cultivation. Of course it is a principle in agriculture that a rotation of crops should be observed, lest a degeneracy of the soil result from a constant extraction of one kind of plant food. It is also a matter of history, that the yellows first appeared to any considerable extent in the middle States, where peaches had been cultivated largely for a long period, where new orchards had replaced old ones, and where grain crops had exhausted the already too impoverished soil.

The disease once abroad in the land, plenty of means were at hand for spreading and propagating it. That it is *contagious* seems proved by the experience of planters, who observe that when it once breaks out in an orchard, and the affected trees are left standing, it is sure to spread. Nor will it confine its ravages to the one orchard, but may extend in a few seasons throughout a whole district.

The theory that it is also *hereditary* is confirmed by an observation of facts. It has been found that trees grown from the pits of diseased fruit will produce sickly trees, which condition the best care and cultivation will not wholly overcome. And this explains the strange instances quoted by Downing, of orchards in which the yellows has broken out in spots, affecting trees not contiguous to each other. We make the following extract under this head from that author's *Fruits and Fruit Trees of America*: "It is established beyond question, that the yellows can always be propagated by budding or grafting from a diseased tree; that the stock, whether peach or almond, also

takes the disease, and finally perishes; and that the seeds of the diseased trees produce young trees in which the yellows sooner or later breaks out."

There are two or three infallible indications of the existence of the yellows in a peach tree, and among these may be mentioned,

(1) *The premature ripening of the fruit.* This will be the first observable symptom, and should the tree survive for two or three years, each recurring season will witness a still earlier time of maturity. This symptom may be to a certain extent counterfeited by the work of the larva of *Egeria exitiosa*, which girdles the tree just below the surface of the ground, and which also may prove the death of it. But to the experienced cultivator the next symptom will be unmistakable, viz:

(2) *The spotted fruit.* Whether naturally yellow or purple, the fruit of such trees as are affected with the yellows is invariably dotted with purplish red spots; while the flesh is highly colored about the pit. Such fruit is sometimes shipped into our country in large quantities to be sold to the uninitiated, and the people of our towns and cities should be on their guard against it, for it is insipid and worthless. There is one more symptom which may be depended upon as unfailing, and that is

(3) *The appearance along the branches of long slender shoots, bearing small narrow leaves.* These leaves are usually of a yellowish color, from which characteristic we have the name of the disease.

Among the measures to be adopted by peach growers to prevent the spread of the yellows, we may mention, (1) *the use of the greatest caution in the purchase of both pits and trees.* Not only should the pits of natural trees be chosen for propagating, as possessing most health and vitality, but they should be gathered from trees that are themselves vigorous and healthy, lest a deterioration be setting in which may prove to be the beginning of troubles. By all means should pits be avoided by the planter that have been grown in districts where the yellows are known to prevail; and surely the ominous words sometimes seen in advertisements of pits for sale, viz, "Warranted free from the yellows," should be warning enough to lead the buyer to make sure in this matter.

As for the trees themselves, since they do not exhibit any indication of disease until sometime planted, the buyer needs to enquire carefully into their nativity, and he must not buy from those sections

where the yellows is known to exist, or he may be assured that he is bringing pestilence into his orchard.

Another source of danger may be overlooked, and that is the *importation of diseased fruit*. Such fruit would be cheap, and therefore the very kind naturally purchased for canning by those unacquainted with its condition; and from these the pits would in many instances find their way into the hands of some planter. Is there any way to prevent such fruit from being brought into our country? Indeed, it is an open question whether government aid ought not to be petitioned in this matter. A rigorous quarantine is observed by our country against diseases of man; England has an Act prohibiting the importation of diseased cattle, and if the diseases of man and beast may thus be guarded against, why may not something similar be done to save our country from this terrible disease of the peach orchards?

The next preventive measure in the hands of the peach grower, after a careful selection of his trees, is (2) *the vigilant outlook for the first appearance of the disease in his orchard*. As soon as he is assured of the first certain indication of its presence, the orchardist must take immediate action. He must cut out the affected tree, root and branch, and destroy it with fire.

The best means of overcoming any tendency to this disease in an orchard is probably (3) *good cultivation*. As in the case of the human system, consumption is warded off by attention to the rules of health, so will any means that will stimulate the healthy and vigorous growth of the peach tree aid in warding off this disease. No planter should set more trees than he can cultivate well, for no tree sooner shows a stunted growth from lack of attention of this kind than the peach tree. Indeed, we believe that except on very light soils twice each year would not be too often for the soil to be thoroughly worked up by the use of the plough and harrow; and for this work the months of May and October may be pointed out as most appropriate.

We also believe that (4) *the shortening in system of pruning is very useful*. We have observed that in our own orchard trees so treated live longer, and seem more healthy and vigorous than those allowed to make long and slender growth; and it is also a subject of remark that this is the method largely practiced on the peach trees in England, and there the yellows has never yet been known to occur. It is a great deal of trouble it is true, especially in large orchards, but "Whatever is worth

doing at all is worth doing well," and this should be a very important motto to the fruit grower. And indeed the work is not so laborious as might be supposed, if only the proper tools are brought into use: a good pair of pruning-shears for young trees, and a Water's tree-pruner for larger ones, will do a great deal of execution in a day, and amply repay the trouble in the increased thrift and vigor of the trees so treated.

(5) *Wet land should be underdrained.* Nothing will sooner impair the vigor of the peach tree than water standing about its roots; and a low state of health will predispose the tree to an attack of the yellows. A complete system of tile drains will therefore not merely pay in the increased yield of fruit, but may help largely in warding off the great enemy that threatens such wholesale slaughter of the orchards themselves.

(6) *Use plenty of fertilizers.* Ashes, lime, and manure may all be used with success in the work of increasing the vitality of the peach tree, and so enabling it the better to repel disease. It is even thought that in cases where a tendency only to disease has manifested itself, an entire renovation and cure of the tree may be hoped for through the use of judicious fertilizers, united with careful cultivation and pruning.

(7) *Grain crops must not be grown about peach trees.* This unwise course has been pointed out by Mr. Downing as among the probable causes of the devastation caused by the yellows in the middle States, about the year 1814. And certainly we shall be on the safe side if we avoid totally what is acknowledged to be an evil in any orchard.

We would also suggest that in every peach growing section (8) *a committee be appointed*, of men acquainted with the nature and symptoms of the yellows, whose duty it shall be to make annual visits to any orchards supposed to be infested, and to point out to the respective owners any cases of yellows they may find, advising the immediate eradication of them; nor would we stop there, but would advocate the enacting of a law by the Legislature, by which the said committee, or an inspector appointed for the purpose, might have the power to enforce the cutting out of all such trees. This may seem to some a superfluous course, but so would it seem in the case of the Canada Thistle, yet we all know how often these are

neglected, to the disgrace of many an otherwise fine farm; so that, plainly it is sometimes found necessary to compel a man by law to take those steps for his own welfare, which either his lack of common sense or his indolence lead him to neglect for himself.

In conclusion, we believe that the most effective measure we can take, as an organized association, to prevent the spread of the yellows, is to *distribute as widely as possible reliable information upon the subject*; for unless one knows how terrible is his enemy, weapons of defence will lie unused. It requires a mind determined by powerful motives, to cut down a beautiful peach tree that has just reached an age of maturity, and is only beginning to repay several years of careful cultivation. But it is evident, for example, that a knowledge of the contagious nature of the disease, by which not one, but many fine trees may soon be affected, will lead any sensible man to choose the lesser of two evils and exterminate the sick tree, root and branch.

And we trust that, as an association, we are giving no uncertain sound in thus warning the people against a threatening danger that has already in parts of Michigan totally ruined the prospects of peach growers, and cleared the land of a once flourishing and profitable industry. And further, we hope that no measure suggested will be left untried to prevent the spread of that much dreaded disease of the peach, commonly known as the yellows.

A. M. Smith, Drummondville, had been corresponding with fruit growers in New Jersey, Delaware, and Michigan on this subject, and their testimony was to the effect that the disease was contagious, that even pruning a healthy tree with the knife that had been used on a diseased tree would communicate the disease, and that the only hope lay in legal enactments requiring the destruction of all diseased trees.

After considerable discussion on this subject, it was unanimously resolved: "That it is desirable that the Bill now before the Legislative Assembly relating to black knot in the plum tree, be so amended as to provide for the digging up and burning of all peach trees affected with the yellows"; and the executive committee was requested to endeavor to have the Bill so amended; or if that was not expedient, to have a Bill introduced that should make it the duty of some suitable officer to cause all peach trees affected with the yellows to be immediately destroyed.

It was also resolved that a petition, signed by the President and

Secretary on behalf of the Association, be presented to the Dominion Parliament, asking that an Act may be passed at this session authorizing the Governor in Council to issue an order at any time preventing the importation of peach trees, peach stones, and diseased peaches, from countries where the disease exists.

P. C. Dempsey called the attention of the Association to the manner in which the present duty upon fruit imported into Canada was practically evaded, and introduced the following resolution :

"Whereas, there is now an *ad-valorem* duty upon fruit, and whereas this form of duty admits of great frauds being perpetrated, not only upon the revenue, but also upon the fruit growers of Ontario, therefore resolved, that this Association recommends to Government that the duty upon fruit be changed to a specific duty."

Considerable discussion ensued, tending to shew the necessity of some change in the duty on fruit, so as to prevent frauds upon the revenue, and to give to the fruit growers of Canada the benefit of the incidental protection which the duties on fruit should afford ; and the resolution was carried unanimously.

There was a considerable display of fruit, mostly apples, in relation to which the fruit committee brought in an appropriate report.

It was resolved that the Directors be authorized to arrange the next Winter Meeting for a two days session.

The Summer Meeting will be held this year in the Town Hall, Peterboro', and the Autumn Meeting in the Town of Walkerton.

THE BEACONSFIELD GRAPE.

We have received a letter from Geo. F. Gallagher in reply to our article in the February number. A considerable part of his letter is devoted to remarks about the Editor, but as these have nothing to do with the question whether the Beaconsfield is identical with the Champion, we omit them. That portion of his letter which treats of the grape vine is as follows :

Editor "*Canadian Horticulturist*."

Dear Sir :

The February number of your magazine has just come under my notice. I observe you have devoted several of your pages to a consideration of the merits of the grape vine which we have named and copyrighted "*Beaconsfield*."

In the first place you say we have claimed the "Beaconsfield" as grown from seed at Rochester. Well, we repeat it, and challenge you to disprove it. Next you say that several nurserymen at Rochester have never heard of it, and are confident "no grape of that name could have been extensively cultivated at Rochester without their knowledge." That is the case exactly, and just what we have claimed. The "Beaconsfield" has not been extensively cultivated at Rochester, and consequently it is not at all surprising that several nurserymen there should have not seen it; in fact it would be very strange if they had, especially under that name, as it was only lately given the distinctive name of "Beaconsfield" by our firm, from want of a better one to call it. Again, these nurserymen are made to say the description given in our circular was closely that of the "Champion" grape. Allow me to remark that the "Champion" and the "Beaconsfield" differ very materially in their leading characteristics.

"Mr. Gallagher," you say, "introduced the 'Beaconsfield' to Mr. Menzies as the 'Champion.'" I don't deny this, or that this particular vine went by the name of Champion, for want of a better and more defined one, for I presume you are aware there are Champions and Champions. Then you say I have been a tree dealer and agent since I was seventeen years of age, and the slur intended is quite apparent. For your information I will say that I have been in business for myself ever since the age of seventeen, and my business record either at Rochester or elsewhere will stand investigation.

When you were informed that I bought in the spring of 1877 a quantity of Champion grape vines at Rochester you were correctly informed, and if you had been informed that I had at the same time obtained the vine which we have since named the "Beaconsfield," your informant would not have been half so untruthful as are your unwarrantable conclusions. You are further informed that we have not raised young vines enough to supply the 4,000 which Mr. Menzies says he intends to plant during the coming spring, and that all the vines we sell of it for planting in the spring of 1879 must come from Rochester. This, Mr. Editor, is a cheeky assertion on the part of your informant, and is devoid of truth.

The vine which for the protection of ourselves and our customers we have copyrighted the "Beaconsfield," bears no more resemblance to the *Champion* than it does to the *Hartford Prolific*. I have made large claims for the success of the "Beaconsfield" vine, and believe I am not going to be disappointed. I claim it is a superior vine to any known for this part of Canada, and I am going to be here to take the consequences of any promises I make in regard to it. If, believing as we do, that it is the best vine, we wish to charge more for it than is charged for other varieties, the public can very well be left to take care of itself in the matter, as we are making no induce-

ments which are not going to hold out. Our price is \$500 per thousand, but if the public desire to buy other varieties from Rochester or elsewhere, at higher or lower prices, they are quite at liberty to do so, but if they are willing to pay more for what we claim is a better article than is asked for a poorer one, surely they have an undoubted right to do so.

Yours truly,

GEO. F. GALLAGHER.

Our correspondent states that in the spring of 1877 he "obtained *the vine* which we have since named the Beaconsfield." Mr. Menzies, however, says (see page 28) that it was not *a vine*, but 2,500 vines of the Beaconsfield, then called Champion, that he planted in the spring of 1877; so that this vine, called the Champion in 1877, had been cultivated by some one near Rochester in sufficient quantity to be obtained by the thousand. Mr. Gallagher does not say that he bought up the Champion *alias* Beaconsfield, so as to secure the control of the entire stock, hence it is quite possible that the person from whom he procured these 2,500 vines may have some of the same sort left, and which he may now have for sale.

Perhaps the following quotations from a letter received from Mr. J. S. Stone, of Charlotte, near Rochester, N. Y., may throw some light on the source of supply. He says, "by referring to my books I find I first sold to Shanley & Gallagher, (this being the name of the firm at the time),

In April, 1873, 124 two year old Champion vines.

" 1875, 430 " "

" 1876, 300 " "

" 1877, 3500 one, two, and three years old.

"S. & G. had vines of me in 1874, but memorandum is not at hand, cannot state the number."

Again, Our correspondent says, "the Champion and the Beaconsfield differ very materially in their leading characteristics," but does not state in what that difference consists. Mr. Menzies describes the Beaconsfield thus, "ripening fully between 25th of August and the 5th of September. It is very prolific, and of rapid growth; the fruit is large, of a dark purple color, sweet and luscious." Mr. Stone, in describing his Champion, says, "it has proved to be the earliest good grape yet introduced. The fruit is large, black, and fine looking, and of a good quality, ripening from ten to twelve days earlier than the Hartford Prolific with the same exposure; the bunches are large and very com-

pack; picked and marketed before any other good variety is matured. The vine is a very vigorous grower, and very hardy." James Hall, late Sheriff of Peterboro', writes to Mr. Stone: "My Delawares are scarcely ripe now, Sept. 11th, and the Champions had from you were ripe a fortnight ago." James Hoosac, residing near Cobourg, writes to Mr. Stone, "The Champion grape vine I procured of you fruited five full grown bunches, and were ripe on the first of September, two of which were awarded the first prize for black grapes at the Cobourg Horticultural Exhibition." We are also informed that Mr. L. W. Decker, of Montreal, had fruited this Champion before 1877, and that it was largely owing to the information received from Mr. Decker that Mr. Menzies decided to plant it largely. Our readers are now in a position to judge for themselves whether the Beaconsfield and this Champion differ materially in their leading characteristics.

It now remains for our correspondent to give the information which would throw a flood of light on this subject—information which so far has been entirely withheld, and which he can give if he chooses, by telling the public from whom he procured the 2,500 vines planted by Mr. Menzies in the spring of 1877, then called Champion, now called Beaconsfield. If they were procured from Mr. Stone, we can tell our readers that he has some of the same sort yet, which he will sell at fifteen dollars per hundred.

HORTICULTURAL JOTTINGS DURING A RECENT TRIP SOUTH.

BY WM. SAUNDERS, LONDON, ONT.

Journeying southward, New York was reached early on the 16th day of November, when a visit long anticipated with pleasure was resolved on, to the well-known establishment of Mr. George Such, at South Amboy. About an hour's railway ride brought me to this quiet little town, of some three or four thousand inhabitants, half way between New York and Long Branch. Mr. Such's place is about two and a half miles from the town, in a barren looking district, reached by a road cut through the woods. On arrival, the obliging foreman, Mr. Taplin, very kindly conducted me through the houses. He has an immense collection of rare things, very many of them never seen

before by the writer; but as very few of the plants were in flower, the visit was a less interesting one than it would otherwise have been. Still there was very much to enjoy. Pitcher Plants, (*Nepenthes*,) were to be seen, in almost endless variety, some of them with their graceful pitchers beautifully marked. Many of these were new seedlings, raised by crossing some of the older varieties, in which work Mr. Taplin has been very successful.

The collection of Orchids is very extensive, embracing an immense number of species, to which constant additions are being made. There were several of them in bloom, amongst which *Odontoglossum grande* is deserving of special mention; the *Cypripediums* were also attractive; *niveum* has very pretty foliage; *Roezlii* was in bloom, and a beautiful thing it was, with its bright colors and curious form; and there were large masses of *insigne*, with a profusion of flowers and flower buds.

Among the Ferns and Palms there were many that were graceful beyond description, while the collection of Crotons was truly magnificent. There was an immense show of Double White Camelias on very large and healthy looking bushes; *Eucharis Amazonica* was in bloom with its delightfully fragrant flowers, while *Lapageria rosea*, with its exquisite bell-shaped deep rose-colored blooms hung over head. *Passiflora princeps*, is a fine deep-red Passion Flower, a vigorous grower and profuse bloomer, and one which will succeed very well in a cold house, provided the temperature does not get lower than from 45° to 50°. An immense *Stephanotis* covered a large portion of the roof of one of the houses, and must be worth travelling a long distance to see when in bloom. But in such a hurried visit, with so many things to admire, the profusion was perplexing, and one could only wish that a place with so many charms was nearer home, so that it might be oftener visited.

On the grounds outside there were also many interesting things. The collection of Japanese Retinosporas was very fine, many of the specimens being from five to six feet in height, and strikingly beautiful in form and foliage. There was a thrifty looking row of *Eulalia Japonica* in bloom, with its many graceful plumes waving in the breeze. Some of the walks were prettily margined with the Japan Golden Leaved Honeysuckle, and others with *Euonymus radicans variegata*, both of which seem very suitable for this purpose, as they bear clipping well, and form very dense, neat, and beautiful margins. A

place so attractive in early winter must be a perfect paradise in the summer season.

The 20th and 21st were spent in Philadelphia, where, under the guidance of Mr. C. H. Miller, landscape gardener at Fairmount Park, I was privileged to see the many improvements which have been made in that beautiful place since the memorable exhibition of 1876. On visiting Horticultural Hall one is at once impressed with the change which has taken place in the interior of that handsome building, consequent on the luxuriant development of the beautiful Palms, Tree Ferns, and other exotics during the past two years. Many of the specimens are now truly magnificent, and occupy so much space that others of lesser moment have gradually been removed.

In the grounds surrounding the hall the change is even greater; some portions have been and others are now being entirely remodelled. There was so much hurry and rush in preparing for the great exhibition that it was scarcely possible to carry out any well digested plan, and hence space was given to different nurserymen and florists to decorate as they thought best. Now, the whole is being worked up in a systematic manner; plants, shrubs and trees belonging to the same families arranged in groups in their natural order, great care being given to selecting those locations where each will show to the best advantage. In one section there is a large Pinetum where all the *conifera* are being grouped, in another the Oaks find a place, and so on with the various species of Ash, Birch, Beech, Maple, &c. A similar arrangement is also being carried out with the herbaceous plants, the *Ranunculaceæ* are in one section by themselves, and so with the *Compositæ*, *Cruciferaæ*, &c. But since in some of the families the plants comprising them are inconspicuous, it has been found necessary to introduce occasionally for the sake of effect a group of flowering shrubs or evergreens to relieve what would otherwise become monotonous. Hence there is in these instances a sort of double plan, but this will not be a matter of inconvenience as it does not interfere with the natural grouping of the different families. There are also some prominent points which are necessarily devoted to purely ornamental purposes; these are filled in season with bedding plants of various sorts; and with a view to producing permanent effects the year through a number of the beds are supplied with groups of the most beautiful evergreens, especially the *Retinosporas* and some of the prettiest of the

Arbor Vitæ and Junipers, the interspaces being filled with bedding plants in summer. This method of planting possesses many advantages, since it makes the beds attractive at all seasons of the year. In some of the beds in prominent places *Azalea amœna* is much used; here it grows to be a shrub of considerable size, and is perfectly hardy; its fine masses of brilliant flowers are said to be particularly attractive in spring. There are also large masses of *Rhododendrons* grouped in some portions of the ground, which must present a magnificent spectacle during that portion of the summer when they are in bloom.

In all departments an immense amount of work has been done during the last two years, and at the time of my visit planting and transplanting were proceeding most vigorously.

SAUNDERS' HYBRID RASPBERRIES.

BY CHARLES ARNOLD, PARIS.

When discussing the question of "What varieties of Raspberries are succeeding well?" at our summer meeting in St. Catharines, I find, on page 29 of our last year's Report, I am represented as saying "The Saunders' Raspberry has given very poor satisfaction." This, Mr. Editor, is a great mistake. Substituting the word *good* for the word "*poor*" in the Report, might make it correct. I certainly could not have said anything bad about them last year, for when growing by the side of Mammoth Cluster, Philadelphia, Clarke, and several other old varieties, several of Saunders' Hybrids were more productive and better flavored than Philadelphia, and certainly equally as hardy as any variety grown.

We regret the error mentioned above should have appeared in our report of the discussions. It arose from a misunderstanding of Mr. Arnold's remarks, and we distinctly remember the feeling of disappointment experienced by us at what we supposed him to have said, and it is very gratifying to learn that these new hybrids which possess so many points of interest are likely to prove valuable sorts.

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BLACKBERRIES.—Dorchester or Kittatiny, \$1 per dozen.

CURRANTS.—Black Naples, Versailles, Cherry or White Grape Currants, \$1 per dozen.

GOOSEBERRIES.—10 Downing, Smith's Improved, or Houghton Gooseberry, \$1.

GRAPE VINES.—10 Concord Grape Vines for \$1. 5 of either Delaware, Salem, Hartford Prolific, Creveling, Rogers' No. 15 or 4, for \$1.

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CHARLES ARNOLD,

PARIS, ONT.